



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner



April 11, 2007

Jim Dombrosk
Director of Energy & Utilities
University of New Hampshire
17 Leavitt Lane
Durham, NH 03824-3522

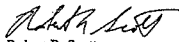
Re: Final Title V Operating Permit for University of New Hampshire
Facility Identification # 3301700009, Application # FY04-0220

Dear Mr. Dombrosk:

The New Hampshire Department of Environmental Services hereby issues the enclosed Title V Operating Permit in accordance with the New Hampshire Code of Administrative Rules *Env-A 100 et seq.*, *New Hampshire Rules Governing the Control of Air Pollution*. The Region I office of the United States Environmental Protection Agency has completed its final review of the proposed Title V Operating Permit and does not object to its issuance. This letter has no effect on the time frame for citizen petitions. The period for a citizen's petition shall expire on July 3, 2007.

In addition, enclosed please find a questionnaire distributed by the Department of Environmental Services, Public Information and Permitting Unit. We are constantly trying to improve our permit processing and your feedback is greatly appreciated. If you have any questions regarding either the Title V Operating Permit or the questionnaire, please contact Doug Laughton at (603) 271-6893 or via e-mail at dlaughton@des.state.nh.us.

Sincerely,


Robert R. Scott
Director
Air Resources Division

rrs/dol

Enclosures: Final Title V Operating Permit TV-OP-010 and Engineering Summary
By certified mail # 7000 1670 0001 2914 7623

cc: Ida McDonnell, USEPA, Region I - By certified mail # 7000 1670 0001 2914 7630
Tim Donnelly, MacMillan & Donnelly, Inc.
Town of Durham

DES Web site: www.des.nh.gov
P.O. Box 95, 29 Hazen Drive, Concord, New Hampshire 03302-0095
Telephone: (603) 271-1370 • Fax: (603) 271-1381 • TDD Access: Relay NH 1-800-735-2964

STATE OF NEW HAMPSHIRE
Department of Environmental Services
Air Resources Division



TITLE V OPERATING PERMIT

Permit No: TV-OP-010
Date Issued: April 11, 2007

This certifies that:
University of New Hampshire
17 Leavitt Lane
Durham, NH 03824-3522
has been granted a Title V Operating Permit for the following facility and location:

University of New Hampshire
Main Street
Durham, NH
AFS Point Source Number - 3301700009

This Title V Operating Permit is hereby issued under the terms and conditions specified in the Title V Operating Permit Application filed with the New Hampshire Department of Environmental Services on December 31, 2003 and supplement filed on November 9, 2005 under the signature of the following responsible official certifying to the best of their knowledge that the statements and information therein are true, accurate and complete.

Responsible Official:
Jim Dombrosk
Director of Energy & Utilities
(603) 862-2345

Technical Contact:
Jim Dombrosk
Director of Energy & Utilities
(603) 862-2345

This Permit is issued by the New Hampshire Department of Environmental Services, Air Resources Division pursuant to its authority under New Hampshire RSA 125-C and in accordance with the provisions of the Code of Federal Regulations, Title 40, Part 70.

This Title V Operating Permit shall expire on April 30, 2012.

SEE ATTACHED SHEETS FOR ADDITIONAL PERMIT CONDITIONS

For the New Hampshire Department of Environmental Services, Air Resources Division

Director, Air Resources Division

TV-OP-010
University of New Hampshire

Page 2 of 45

TABLE OF CONTENTS

ABBREVIATIONS	3
ABBREVIATIONS (cont.)	4
Facility Specific Title V Operating Permit Conditions	5
I. Facility Description of Operations:	5
II. Permitted Activities:	5
III. Significant Activities Identification:	5
A. Significant Activities:	5
B. Stack Criteria:	7
IV. Insignificant Activities Identification:	7
V. Exempt Activities Identification:	7
VI. Pollution Control Equipment/Technique Identification:	7
VII. Alternative Operating Scenarios:	8
VIII. Applicable Requirements:	8
A. State-only Enforceable Operational and Emission Limitations:	8
B. Federally Enforceable Operational and Emission Limitations:	9
C. Emission Reductions Trading Requirements	14
D. Monitoring and Testing Requirements:	14
E. Recordkeeping Requirements:	26
F. Reporting Requirements:	30
IX. Requirements Currently Not Applicable:	33
General Title V Operating Permit Conditions	34
X. Issuance of a Title V Operating Permit	34
XI. Title V Operating Permit Renewal Procedures	34
XII. Application Shield	34
XIII. Permit Shield	34
XIV. Reopening for Cause	35
XV. Administrative Permit Amendments	35
XVI. Operational Flexibility	35
XVII. Minor Permit Amendments	37
XVIII. Significant Permit Amendments	37
XIX. Title V Operating Permit Suspension, Revocation or Nullification	38
XX. Inspection and Entry	38
XXI. Certifications	38
A. Compliance Certification Report	38
B. Certification of Accuracy Statement	39
XXII. Enforcement	39
XXIII. Emission-Based Fee Requirements	40
XXIV. Duty To Provide Information	41
XXV. Property Rights	41
XXVI. Severability Clause	41
XXVII. Emergency Conditions	41
XXVIII. Permit Deviation	42

ABBREVIATIONS

AAL	Ambient Air Limit
AP-42	Compilation of Air Pollutant Emission Factors
ARD	Air Resources Division
ASTM	American Society for Testing and Materials
BHP	Break Horse Power
BSEG	Black Start Emergency Generator
BTU	British Thermal Units
CAA	Clean Air Act
CAS	Chemical Abstract Service
CEMS	Continuous Emission Monitoring System
CF	Cubic Foot (ft ³)
CFR	Code of Federal Regulations
CGA	Cylinder Gas Audit
CO	Carbon monoxide
CO ₂	Carbon Dioxide
COMS	Continuous Opacity Monitoring System
CT	Combustion Turbine
DB	Duct Burner
DER	Discrete Emission Reduction
EG	Emergency Generator
Env-A	New Hampshire Code of Administrative Rules – Air Resources Division
ERC	Emission Reduction Credit
FR	Federal Register
ft ³	Cubic foot
Gal	Gallon
HAP	Hazardous Air Pollutant
HCl	Hydrochloric acid
hr	hour
HRS	Heat Recovery Steam Generator
kGal	1,000 gallons
KW	Kilo Watt
lb/hr	pounds per hour
LPG	Liquid Petroleum Gas (Propane)
mg/L	Milligrams per liter (ppm)
MMBTU	Million British Thermal Units
MMCF	Million Cubic Feet
MW	Mega Watt
NA	Not Available
NAAQS	National Ambient Air Quality Standard
NESHAPs	National Emissions Standards for Hazardous Air Pollutants
NG	Natural Gas
NHDES (or DES)	New Hampshire Department of Environmental Services
NO _x	Oxides of Nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review

ABBREVIATIONS (cont'd.)

PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 microns diameter
ppm	part per million
ppmvd	part per million by volume dry basis
PSD	Prevention of Significant Deterioration
PSI	Pounds per Square Inch
PTB	Potential to Emit
RAA	Relative Accuracy Audit
RACT	Reasonably Available Control Technology
RATA	Relative Accuracy Test Audit
RSA	Revised Statutes Annotated
RTAP	Regulated Toxic Air Pollutant
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
TAP	Toxic Air Pollutant
TSP	Total Suspended Particulate Matter
TPY	Tons per Year
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

Facility Specific Title V Operating Permit Conditions

I. Facility Description of Operations:

The University of New Hampshire, Durham Campus (UNH) is an educational institution located in Durham, NH. The predominant source of air pollutant emissions at UNH is its central heating plant, a boiler located in the New England Center, a combustion turbine with supplemental heat recovery steam generator, and emergency generators located throughout the facility.

II. Permitted Activities:

In accordance with all of the applicable requirements identified in the Permit, the Permittee is authorized to operate the devices and/or processes identified in Sections III, IV, V, and VI within the terms and conditions specified in this permit.

III. Significant Activities Identification:

A. Significant Activities:

The activities identified in Table 1 are subject to and regulated by this Title V Operating Permit.

Table 1 - Significant Activity Identification			
Activity ID	Description of Activity	Year	Estimated Annual Emissions
EU1	Boiler #1 (Central Heating Plant) Babcock & Wilcox Model FF2972 Serial Number NA	1963	47.3 MMBtu/hr ¹ a) No. 6 fuel oil, equivalent to 315.3 gal/hr; or b) Natural gas, equivalent to 46,373 scf/hr
EU2	Boiler #2 (Central Heating Plant) Babcock & Wilcox Model FF2972 Serial Number NA	1963	47.3 MMBtu/hr a) No. 6 fuel oil, equivalent to 315.3 gal/hr; or b) Natural gas, equivalent to 46,373 scf/hr
EU3	Boiler #3 (Central Heating Plant) Babcock & Wilcox Model FF2713 Serial Number NA	1958	47.3 MMBtu/hr a) No. 6 fuel oil, equivalent to 315.3 gal/hr; or b) Natural gas, equivalent to 46,373 scf/hr
EU4	Boiler #4 (Central Heating Plant) Riley Model NA Serial Number NA	1948	47.3 MMBtu/hr a) No. 6 fuel oil, equivalent to 315.3 gal/hr; or b) Natural gas, equivalent to 46,373 scf/hr
EU5	Boiler #5 (Central Heating Plant) Cleaver Brooks Model CB-600-400 Serial Number NA	1986	16.7 MMBtu/hr a) No. 6 fuel oil, equivalent to 111.7 gal/hr; or b) Natural gas, equivalent to 16,373 scf/hr

¹ The heating values of Diesel fuel, No. 6 fuel oil, No. 2 fuel oil, and natural gas are assumed to be equal to 137,000 Btu/gal, 150,000 Btu/gal, 140,000 Btu/gal, and 1,020 Btu/scf, respectively.

Table 1 - Significant Activity Identification			
Activity ID	Description of Activity	Year	Estimated Annual Emissions
EU6	New England Center Boiler Cleaver Brooks Model CB-662-300 Serial Number NA	1965	12.6 MMBtu/hr a) No. 2 fuel oil, equivalent to 89.5 gal/hr; or b) Natural gas, equivalent to 12,353 scf/hr
EU7	Combustion Turbine Alstom Power Model Tempest Serial Number NA	2004	104.8 MMBtu/hr using No. 2 fuel oil at 0 deg F with the Chiller OFF ¹ , equivalent to 748.6 gal/hr No. 2 fuel oil; 106.0 MMBtu/hr using Natural gas at 0 deg F with the Chiller OFF, equivalent to 103,922 scf/hr Natural gas
EU8	Heat Recovery Steam Generator With Duct Burner Energy Recovery International Model VC-4 Serial Number 4759 Nat Com Burner Model DBG 582R Serial Number 9511-1	2004	66.3 MMBtu/hr Natural gas, equivalent to 66,300 scf/hr
EU9	Black Start Emergency Generator ² at the Combustion Turbine Building Caterpillar Model 3412/SR4B Serial Number BLG02735 750 KW	2004	7.5 MMBtu/hr Diesel fuel, equivalent to 54.8 gal/hr
EU10	Emergency Generators (EG1 through EG7 listed in Attachment A) which are included in the facility wide emissions cap along with EU1 through EU9.	Prior to 1999	See Attachment A
EU11	See Attachment A for a list of all emergency Generators on the UNH campus above permitting thresholds of 1.5 MMBtu/hr gross heat input rate combined for liquid fuels and 10.0 MMBtu/hr gross heat input rate combined for gaseous fuels, and which individually are above 150,000 Btu/hr gross heat input rate.	See Attachment A	See Attachment A

² The Combustion Turbine has an Absorption Chiller to provide combustion air pre-cooling for the Combustion Turbine. This operates whenever the ambient air temperature is above 70 degrees F and the Turbine can not meet the campus electrical load.

¹ The Black Start Emergency Generator (EU9) is listed as EG8 in the table of all emergency generators at the facility above 150,000 Btu/hr in Attachment A of this permit.

B. Stack Criteria:

The stacks listed in Table 2 – Stack Criteria, for the significant devices described in Table 1 and listed below, shall discharge vertically without obstruction (including rain caps) and meet the following criteria in accordance with the state requirements* of Env-A 606.

Stack #	Device	Height (ft)	Temperature (°F)
Stack #1	EU1, EU2, EU3, and EU4 (Combined Stack)	205	8.5
Stack #2	EU5	50	3.0
Stack #3	EU6	35	2.0
Stack #4	EU7/EU8	100	5.0

A. The owner or operator may change the stack criteria described in Table 2 without obtaining approval from DES provided that:

1. An air-quality impact analysis is performed either by the facility or DES (if requested by the facility in writing) in accordance with Env-A 606 and the "Guidance and Procedures for Performing Air Quality Impact Modeling in New Hampshire", and
2. The analysis demonstrates that emissions from the modified stack will continue to comply with all applicable emission limitations and ambient air limits.

B. All air modeling data and analyses shall be kept on file at the facility for review by DES upon request.

IV. Insignificant Activities Identification:

All activities at this facility that meet the criteria identified in Env-A 609.04 shall be considered insignificant activities. Emissions from the insignificant activities shall be included in the total facility emissions for the emission-based fee calculation described in Section XXIII of this Permit.

V. Exempt Activities Identification:

All activities identified in Env-A 609.03(c) shall be considered exempt activities and shall not be included in the total facility emissions for the emission based fee calculation described in Section XXIII of this permit.

VI. Pollution Control Equipment/Technique Identification:

The devices and/or processes identified in Table 1 do not operate with any add-on pollution control equipment.

* The term "state requirement" is used to refer to those requirements that are not federally enforceable but are state requirements as defined in Env-A 101.184.

VII. Alternative Operating Scenarios:

No alternative operating scenarios were identified in this permit.

VIII. Applicable Requirements:**A. State Enforceable Operational and Emission Limitations:**

The Permittee shall be subject to the state enforceable operational and emission limitations identified in Table 3 below.

Requirement	Applicable Requirements	Facility Wide	Env-A 403.01
1.	Required Emission Reductions From Class B Major Sources Annual sulfur dioxide emissions from each Class B major source, shall have an average calendar year emission rate not to exceed 1.6 pounds of sulfur dioxide per million Btu heat input, equivalent to No. 6 fuel oil with 1.5 percent sulfur by weight, which is 75 percent of the baseline average emission rate for Class B major sources.		

B. Federally Enforceable Operational and Emission Limitations

The Permittee shall be subject to the federally enforceable operational and emission limitations identified in Tables 4a and 4b below:

Requirement	Applicable Requirements	Enforcement Authority
1. <u>Maximum Sulfur Content Allowable in Liquid Fuels</u> The sulfur content of No. 2 fuel oil shall not exceed 0.40 percent sulfur by weight.	Facility Wide	Env-A 1604.01(a) & Temporary Permit FP-T-0110
2. <u>Maximum Sulfur Content Allowable in Gaseous Fuels</u> The sulfur content of natural gas shall not exceed 15 grains of sulfur per 100 cubic feet of gas, calculated as hydrogen sulfide at standard temperature and pressure.	Facility Wide	Env-A 1605.01(a) & Temporary Permit FP-T-0110
3. The facility netted out of Non-attainment New Source Review (NSR) and Prevention of Significant Deterioration (PSD) program requirements by accepting federally enforceable criteria pollutant emissions caps for EU5 (Boiler 5 at the Central Heating Plant) listed below: SO ₂ = 35.29 tpy - (PSD applicability threshold = 40 tpy) NO _x = 8.24 tpy - (PSD applicability threshold = 40 tpy) CO = 0.75 tpy - (PSD applicability threshold = 100 tpy) TSP = 2.55 tpy - (PSD applicability threshold = 25 tpy) PM ₁₀ = 2.19 tpy - (PSD applicability threshold = 15 tpy)	EU5	40 CFR 52.21 Avoidance
4. The facility netted out of NSR and PSD program requirements via accepting federally enforceable emissions caps for combined emissions from EU1 through EU10. See Attachment A of Temporary Permit FP-T-0110 for an explanation of the netting analysis and how the criteria pollutant emission caps were established. Facility wide caps do not contain emissions from insignificant boilers, insignificant emergency generators, fuel oil storage sources, and/or miscellaneous insignificant VOC sources. These criteria pollutant emission caps became effective on June 1, 2006, when EU7, EU8, and EU9 were operational and began to emit a particular pollutant, in accordance with 40 CFR 52.21(b)(3)(viii). Criteria pollutant emissions caps for EU1 through EU10 combined for consecutive 12-month periods for the criteria pollutants and sulfuric acid (H ₂ SO ₄) mist are listed below: NO _x = 77.83 tons per consecutive 12 month period SO ₂ = 257.20 tons per consecutive 12 month period CO = 106.34 tons per consecutive 12 month period VOC = 25.74 tons per consecutive 12 month period PM ₁₀ = 30.81 tons per consecutive 12 month period H ₂ SO ₄ Mist = 6.90 tons per consecutive 12 month period	EU1 through EU10	40 CFR 52.21 Avoidance & Temporary Permit FP-T-0110

Requirement	Applicable Requirements	Enforcement Authority
5. The facility is opting out of NO _x RACT requirements for emergency generators in Env-A 1211.11 by keeping the combined theoretical potential to emit NO _x emissions below 25 tons per consecutive 12 month period by taking a 225 hour per year limitation for each Emergency Generator at the facility. Note that this is more stringent than Env-A 1211.01(j)(1), which calls for restricting hours of operation to less than 500 hours.	EU9, EU10, & EU11	Env-A 1211.01(j) & Temporary Permit FP-T-0110
6. All emergency generators at the facility shall only operate: a) As a mechanical or electrical power source and only when the primary power source for the Facility has been lost during an emergency such as a power outage; or b) During normal maintenance, and testing as recommended by the manufacturer.	EU9, EU10, & EU11	Env-A 1211.02(c) & Temporary Permit FP-T-0110
7. <u>NO_x RACT Emission Standards for Combustion Turbines</u> NO _x emissions from the Combustion Turbine (CT) shall be less than or equal to 25 ppmvd at 15% oxygen or 0.092 lb/MMBtu while firing natural gas. Note that this is more stringent than the NO _x emissions limit in 40 CFR 60 Subpart GG Section 60.332.	EU7	Env-A 1211.02(d) & Temporary Permit FP-T-0110
8. <u>NO_x RACT Emission Standards for Combustion Turbines</u> NO _x emissions from the CT shall be less than or equal to 65 ppmvd at 15% oxygen or 0.253 lb/MMBtu while firing oil.	EU7	Env-A 1211.02(c)(1)b.2. & Temporary Permit FP-T-0110
9. <u>Visible Emission Standard for Fuel Burning Devices Installed on or Prior to May 13, 1970</u> No owner or operator shall cause or allow average opacity from fuel burning devices in excess of 40 percent for any continuous 6 minute period in any 60 minute period.	EU1 through EU4 & EU6	Env-A 1202.01 & Env-A 2002.01 ¹ (eff. 4-23-05)
10. <u>Visible Emission Standard for Fuel Burning Devices Installed After May 13, 1970</u> No owner or operator shall cause or allow average opacity from fuel burning devices in excess of 20 percent for any continuous 6 minute period in any 60 minute period.	EU5, EU7, EU8, EU9, EU10, & EU11	Env-A 1202.02 & Env-A 2002.02 (eff. 4-23-05) & Temporary Permit FP-T-0110

¹ Env-A 2002 was formerly Env-A 1200, contained in the EPA-approved State Implementation Plan.

Applicable Requirements			
Item	Requirement	Applicable Requirements	Applicable Requirements
11.	<u>Activities Exempt from the Visible Emission Standard</u> For those steam generating units subject to 40 CFR 60, i.e., the CT and Duct Burner (DB) on the Heat Recovery Steam Generator (HRSG), no more than one of the following 2 exemptions shall be taken: a) During periods of startup, shutdown and malfunction, average opacity shall be allowed to be in excess of 20 percent for one period of 6 continuous minutes in any 60 minute period; or b) During periods of normal operation, average opacity shall be allowed to be in excess of 20 percent but not more than 27 percent for one period of 6 continuous minutes in any 60 minute period.	EU7 & EU8	Env-A 2002.04(a) (eff. 4-23-05) & Temporary Permit FP-T-0110
12.	<u>Activities Exempt from the Visible Emission Standard</u> Exceedances of the opacity standard shall not be considered violations of this chapter if the source demonstrates to the department that such exceedances were the result of the adherence to good boiler operating practices which, in the long term, results in the most efficient or safe operation of the boiler. Exceedances of the opacity standard shall not be considered violations of this chapter if the source demonstrates to the department that such exceedances were the result of the occurrence of an unplanned incident in which the opacity exceedance was beyond the control of the operator and that in response to such an incident, the operator took appropriate steps in conformance with good boiler operating practice to eliminate the excess opacity as quickly as possible.	EU7 & EU8	Env-A 2002.04(d),(f) (eff. 4-23-05) & Temporary Permit FP-T-0110
13.	<u>Particulate Emission Standards for Fuel Burning Devices Installed on or Prior to May 13, 1970</u> No owner or operator shall cause or allow emissions of particulate matter from fuel burning devices installed on or prior to May 13, 1970 in excess of the rates set forth below, where: For devices with I (maximum gross heat input rate in MMBtu/hr) equal to or greater than 10 but less than 10,000, E (the maximum allowable particulate matter emission rate in lb/MMBtu) shall be calculated by raising I to the -0.166 power, and multiplying the result by 0.880, expressed mathematically in the formula below: $E = 0.880 \cdot I^{-0.166}$	EU1 through EU4 & EU6	Env-A 2002.06(c)(2) (eff. 4-23-05)
14.	<u>Particulate Emission Standards for Fuel Burning Devices Installed on or After January 1, 1985</u> No owner or operator shall cause or allow emissions of particulate matter from fuel burning devices installed on or after January 1, 1985 in excess of 0.30 lb/MMBtu.	EU5, EU7/EU8, EU9, EU10, & EU11	Env-A 2002.08(c)(1) (eff. 4-23-05) & Temporary Permit FP-T-0110
15.	The CT emissions shall be limited to less than 0.015 percent sulfur dioxide by volume at 15 percent oxygen and on a dry basis and no fuel shall be burned in the CT which contains sulfur in excess of 0.8 percent by weight	EU7	40 CFR 60 Subpart GG Section 60.333(a) & (b)

Applicable Requirements			
Item	Requirement	Applicable Requirements	Applicable Requirements
16.	<u>Accidental Release Program Requirements</u> The quantities of regulated chemicals stored at the facility are less than the applicable threshold quantities established in 40 CFR 68.130. The facility is subject to the Purpose and General Duty clause of the 1990 Clean Air Act, Section 112(r)(1). General Duty includes the following responsibilities: a) Identify potential hazards which result from such releases using appropriate hazard assessment techniques; b) Design and maintain a safe facility; c) Take steps necessary to prevent releases; and d) Minimize the consequences of accidental releases that do occur.	Facility Wide	CAA Section 112(r)(1)

Parameter	Unit	Value	Unit	Value	Unit	Value
EUS	8.24 tpy	55.29 tpy	2.19 tpy PM10 & 2.55 tpy TSP	0.75 tpy	No limit	No limit
EU7 (gas)	25 ppmvd at 15% O2 or 0.092 lb/MMBtu	0.0043 lb/MMBtu	2.12 lb/hr ^a or 0.0319 lb/MMBtu	0.1122 lb/MMBtu	0.0321 lb/MMBtu	0.0003 lb/MMBtu
EU7 (oil)	65 ppmvd at 15% O2 or 0.253 lb/MMBtu	0.3903 lb/MMBtu	5.25 lb/hr ^a or 0.0804 lb/MMBtu	0.1150 lb/MMBtu	0.033 lb/MMBtu	0.030 lb/MMBtu
EU7 (gas) & EU8 (gas) ^b	0.1019 lb/MMBtu or 17.55 lb/hr	0.0044 lb/MMBtu or 0.75 lb/hr	0.0194 ^c lb/MMBtu or 2.6 lb/hr	0.1084 lb/MMBtu or 18.67 lb/hr	0.0288 lb/MMBtu or 4.97 lb/hr	0.000348 ^d lb/MMBtu or 0.06 lb/hr
EU7 (oil) & EU8 (gas) ^b	0.2005 lb/MMBtu or 34.31 lb/hr	0.2408 lb/MMBtu or 41.19 lb/hr	0.0433 ^e lb/MMBtu or 5.8 lb/hr	0.1101 lb/MMBtu or 18.83 lb/hr	0.0293 lb/MMBtu or 5.02 lb/hr	0.0187 ^f lb/MMBtu or 3.2 lb/hr
EU9 ^g	7.17 gram/bHP-hr or 15.9 lb/hr	0.40 lb/MMBtu or 3.10 lb/hr	0.06 lb/MMBtu or 0.48 lb/hr	0.39 lb/MMBtu or 2.97 lb/hr	0.07 lb/MMBtu or 0.55 lb/hr	No limit
Facility Wide Caps ^h	77.83 tpy	257.20 tpy	30.81 tpy	106.34 tpy	25.74 tpy	6.90 tpy

^a Maximum short term (lb/hr) PM₁₀ emissions of 2.12 lb/hr from the CT firing natural gas occur at 0 deg F at any load, per vendor guarantee. Note that the 0.0319 lb/MMBtu value is for operation of the CT at 62.1 MMBtu/hr at 45 deg F, the worst case short term emissions of PM₁₀ from the CT in terms of lb/MMBtu.

^b Maximum short term PM₁₀ emissions of 5.25 lb/hr from the CT firing No. 2 fuel oil occur at 0 deg F at any load, per vendor guarantee. Note that the 0.0804 lb/MMBtu value is for operation of the CT at 60.9 MMBtu/hr at 45 deg F, the worst case short term emissions of PM₁₀ from the CT in terms of lb/MMBtu.

^c Maximum gross heat input rate for CT on gas is 106.0 MMBtu/hr and DB on gas is 66.3 MMBtu/hr.

^d Maximum combined PM₁₀ emissions of 2.6 lb/hr occur when the CT is firing gas at any load while at 0 deg F, per vendor guarantee. Maximum combined PM₁₀ emissions in lb/MMBtu occur when the CT is at a lower load (67.8 MMBtu/hr) firing natural gas at 0 deg F, with the HRSG at its maximum heat input rate of 66.3 MMBtu/hr on natural gas.

^e CT at 106 MMBtu/hr and HRSG at 66.3 MMBtu/hr with ambient air temperature of 0 deg F and Chiller Off.

^f Maximum gross heat input rate for CT on No. 2 fuel oil is 104.8 MMBtu/hr and DB on gas is 66.3 MMBtu/hr.

^g Maximum combined PM₁₀ emissions of 5.8 lb/hr occur when the CT is firing No. 2 fuel oil at any load while at 0 deg F, per vendor guarantee. Maximum combined PM₁₀ emissions in lb/MMBtu occur when the CT is at a lower load (67.6 MMBtu/hr) firing No. 2 fuel oil at 0 deg F, with the HRSG at its maximum heat input rate of 66.3 MMBtu/hr on natural gas.

^h CT at 104.8 MMBtu/hr on natural gas, HRSG at 66.3 MMBtu/hr with ambient temperature of 0 deg F and Chiller Off.

ⁱ Black Start Emergency Generator (referred to as EU9 in Table 1 of this permit and EGB in Attachment A) is located at the Combustion Turbine Plant, emissions limitations were established in the Temporary Permit FP-T-0110.

^j Facility wide caps include EU1 through EU8 plus EU9 and EU10 plus contemporaneous additions of 5 small emergency generators and 12 small building furnace/boilers, which are all listed in Attachment B of this Title V Operating Permit.

C. Emission Reductions Trading Requirements

UNH was granted 33 Emissions Reductions Credits (14 for use during ozone season and 19 for use during non-ozone season) via Certificate No. 97NUNH02C for the shutdown of Consummate Incinerators 1, 2, & 3. The 33 ERCs shall be valid provided that the credited reductions remain real, quantifiable, surplus, enforceable, and permanent and provided that the Permittee complies with all of the following legally enforceable conditions:

1. UNH is subject to Env-A 3000 and the approved NO_x ERCs Creation Protocol;
2. UNH shall not operate Consummate Incinerators 1, 2, & 3;
3. These ERCs, generated from the shutdown of the Consummate Incinerators, shall only be used by UNH, and UNH may not sell, transfer, or trade these ERC's; and
4. UNH shall not use these ERCs prior to obtaining written consent from DES, in accordance with Env-A 3006 and 3007.

UNH also generated credits for the gas conversion of Boilers 1-5. UNH is authorized under the applicable requirements of Env-A 3100 (the Discrete Emissions Reductions (DERs) Trading Program) to trade seven 1997 ozone season and thirteen non-ozone season DERs. Additional DERs may be traded upon submittal of Notices of Generation of DERs for periods after 1997. Upon submittal, said Notices shall be available to the public under RSA 91-A.

D. Monitoring and Testing Requirements:

The Permittee is subject to the monitoring and testing requirements as contained in Table 5 below:

Item	Parameter	Method/Compliance	Frequency	Applicable Emission	Regulatory Reference
1.	NO _x RACT Annual Boiler Tune-ups	NO _x RACT Annual Boiler Tune-up Annually, the owner or operator shall: a) Perform an efficiency test using the test procedures specified in Chapter 3, Combustion Efficiency Tables, Taplin, Harry R., Fairmont Press, 1991; and b) Adjust the combustion process of the boiler in accordance with the procedures specified in Chapter 5, Combustion Efficiency Tables, Taplin, Harry R., Fairmont Press, 1991.	Annually, or within 60 days of startup if a unit has been out of service for 12 consecutive months or longer	EU1 through EU6	Env-A 1211.05(b)(1)
2.	Fuel Monitoring	Fuel flow monitors and recorders shall be installed, maintained, and operated on the natural gas inlet lines to the CT and DB. The systems shall at a minimum be capable of giving instantaneous flow measurements and recording total daily (continuous 24 hour period) fuel usage for the emissions device. The owner or operator shall follow the manufacturer's recommended calibration and preventative maintenance procedures.	Instantaneous & Daily Total Consumption	EU7 & EU8	Temporary Permit FP-T-0110

Item	Category	Requirement	Measurement	Unit	Permit
3.	Fuel Monitoring	A fuel flow monitor and recorder shall be installed, maintained, and operated on the fuel oil inlet line to the CT. The system shall at a minimum be capable of giving instantaneous flow measurements and recording total daily (continuous 24 hour period) fuel usage for the CT. The owner or operator shall follow the manufacturer's recommended calibration and preventative maintenance procedures.	Instantaneous & Daily Total Consumption	EU7	Temporary Permit FP-T-0110
4.	Fuel Monitoring	A fuel flow monitor and recorder shall be installed, maintained, and operated on the fuel oil inlet line to the BSEG. The system shall be capable of giving instantaneous flow measurements and recording total daily (continuous 24 hour period) fuel usage for the BSEG. The owner or operator shall follow the manufacturer's recommended calibration and preventative maintenance procedures.	Instantaneous & Daily Total Consumption	EU9	Temporary Permit FP-T-0110
5.	Hours of Operation for the BSEG	An hours of operation totalizer shall be installed, maintained, and operated on the BSEG. The system shall be capable of recording and totalizing hours of operation of the BSEG. The owner or operator shall follow the manufacturer's recommended calibration and preventative maintenance procedures.	Continuous hours of operation	EU9	Temporary Permit FP-T-0110
6.	Custom Fuel Monitoring for CT (natural gas)	a) No monitoring of fuel nitrogen is required so long as the facility is supplied with solely pipeline-quality natural gas or LNG. b) No monitoring of sulfur content is required for pipeline natural gas that meets the definition of natural gas in 40 CFR 60 Section 60.331(u), i.e., is less than or equal to 20 grains of sulfur per 100 cubic feet of natural gas. The owner or operator is required to keep records of the gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less. The owner or operator can also use representative fuel sampling and analysis data from its performance test to show the sulfur content of the pipeline natural gas is less than or equal to 20.0 grains/100 scf.	As specified	EU7	40 CFR 60 Subpart GG Section 60.334(h)(3) & Temporary Permit FP-T-0110

Item	Category	Requirement	Measurement	Unit	Permit
7.	Custom Fuel Monitoring for CT (No. 2 fuel oil)	The owner or operator shall be required to do the following monitoring of No. 2 fuel oil for consumption by the Combustion Turbine: For each delivery of No. 2 fuel oil, the owner or operator shall conduct testing using the appropriate ASTM Method or retain certified delivery tickets from the fuel oil supplier which state the weight percent of sulfur and fuel bound nitrogen content to determine compliance with the sulfur and nitrogen content limitations required by 40 CFR 60 Subpart GG in this permit for liquid fuels.	As specified	EU7	Temporary Permit FP-T-0110
8.	CT NO _x CEMS Requirements	The owner or operator shall install, operate, maintain, and perform quality assurance testing of a CEM system meeting all of the requirements specified in Items 9 through 17 of Table 5 if any of the following conditions exists: The owner or operator of a source chooses to limit its potential to emit by accepting federally enforceable permit conditions that restrict its hours of operation, the type or amount of material combusted, stored, or processed, or its level of production, and continuous emission monitoring is determined by the division to be necessary to ensure that these permit conditions are not violated	As specified	EU7	Env-A 808.02(a)(2) (eff. 10-31-02) & Temporary Permit FP-T-0110

Table 2-3: Monitoring Requirements					
Item	Requirement	As specified	EU7	Env-A 808.03(a), (c), (d), & (e) (eff. 10-31-02) & Temporary Permit FP-T-0110	
9.	<p>CT NO_x CEMS Minimum Specifications for CEM Systems</p> <p>a) A CEM system for measuring gaseous emissions shall average and record the data for each calendar hour;</p> <p>b) All CEM systems, opacity and gaseous measuring included, shall:</p> <ol style="list-style-type: none"> 1. Include a means to display instantaneous values of percent opacity and gaseous emission concentrations; and 2. Complete a minimum of one cycle of operation, which shall include measurement, analyzing, and data recording for each successive 3-minute period for systems measuring gaseous emissions and each 10-second period for systems measuring opacity, unless a longer time period is approved in accordance with Env-A 809; <p>c) A stack volumetric flow measuring device required to be installed after January 1, 1992, shall meet the following requirements:</p> <ol style="list-style-type: none"> 1. All differential pressure flow monitors shall have an automatic blow-back purge system installed, and in wet stack conditions, shall have the capability for drainage of the sensing lines; and 2. The stack flow monitoring system shall have the capability for manual calibration of the transducer while the system is on-line and for a zero check; and <p>d) Alternatives to in-stack flow monitoring devices for determination of stack volumetric flow rate may be used if the owner or operator provides the Division with technical justification that the alternative can meet the same requirements for data availability, data accuracy, and quality assurance as an in-stack device.</p>	As specified	EU7	Env-A 808.03(a), (c), (d), & (e) (eff. 10-31-02) & Temporary Permit FP-T-0110	

Table 2-3: Monitoring Requirements					
Item	Requirement	As specified	EU7	Env-A 808.06(a) & (c) (eff. 10-31-02) & Temporary Permit FP-T-0110	
10.	<p>NO_x CEM QA/QC Plan Requirements</p> <p>The owner or operator is required to develop a QA/QC plan for the NO_x CEM system. A copy must be filed with the Division within 30 days of completion of the performance specification testing of the NO_x CEM. It must be reviewed at least once annually and updated. Within 30 days of completion of the QA/QC plan annual review, the owner or operator must certify in writing to the Division that the owner or operator will continue to implement the source's existing QA/QC plan or submit in writing any changes to the plan and the reason for each change. The QA/QC plan shall be considered an update to the CEM monitoring plan required by Env-A 808.04.</p>	As specified	EU7	Env-A 808.06(a) & (c) (eff. 10-31-02) & Temporary Permit FP-T-0110	
11.	<p>NO_x CEM General Audit Requirements</p> <ol style="list-style-type: none"> a) Required quarterly audits shall be done anytime during each calendar quarter, but successive quarterly audits shall occur no more than 4 months apart; b) Within 30 days following the end of each quarter, the owner or operator of the source shall submit to the Division a written summary report of the results of all required audits that were performed in that quarter, with the report format for the NO_x CEM system conforming to that presented in 40 CFR 60 Appendix F, Procedure 1, Section 7; c) The owner or operator shall notify the Division at least 30 days prior to the performance of a RATA; d) The Division shall require rescheduling of any RATA if the staff necessary to observe the audit are not available; and e) The owner or operator shall provide at least two weeks notice prior to any other planned audit or test procedure. 	As specified	EU7	Env-A 808.07(a)-(e) (eff. 10-31-02) & Temporary Permit FP-T-0110	

Item	Category	Requirement	As specified	EU7	Env-A 808.08(a) (eff. 10-31-02) & Temporary Permit FP-T-0110
12.	Audit Requirements for Gaseous CEM Systems	For a system monitoring gaseous emissions of SO ₂ , NO _x , O ₂ or CO ₂ , the quality assurance requirements and procedures described in 40 CFR 60, Appendix F, shall apply, with the following additions and clarifications for Procedure 1 of Appendix F: a) The owner or operator shall inform the division of all out of control periods, as defined in Appendix F, section 4.3, and Env-A 808.01(g), in the emission reports required pursuant to Env-A 808.11; b) The owner or operator may perform a RAA, as defined in 40 CFR 60, Appendix F, in place of a CGA; and c) For CEM systems where CGA audits cannot be performed, the owner or operator shall perform RAA audits in place of the CGA;	As specified	EU7	Env-A 808.08(a) (eff. 10-31-02) & Temporary Permit FP-T-0110
13.	Audit Requirements for Gaseous CEM Systems	The owner or operator of a stationary source determining compliance with a mass flow emissions limit by using a stack flow volumetric monitor or a fuel flow meter with O ₂ /CO ₂ measurements to calculate heat input or stack flow rate, shall conduct annually a minimum 9-run RATA with the relative accuracy calculated in the units of the mass emissions measurement as specified in 40 CFR 60, Appendices B and F.	As specified	EU7	Env-A 808.08(d) (eff. 10-31-02) & Temporary Permit FP-T-0110
14.	Audit Requirements for Gaseous CEM Systems	For a stationary source using a stack volumetric flow monitor for the mass flow emissions calculation, the owner or operator shall also perform one of the audit options as specified in Env-A 808.08(f)(1) or (2).	As specified	EU7	Env-A 808.08(f) (eff. 10-31-02) & Temporary Permit FP-T-0110

Item	Category	Requirement	As specified	EU7	Env-A 808.10(e)-(g) (eff. 10-31-02) & Temporary Permit FP-T-0110
15.	Data Availability Requirements	The owner or operator of a source with a CEM shall operate the NO _x CEM at all times during operation of the CT, except for periods of CEM breakdown, repairs, calibration checks, preventative maintenance, and zero/span adjustments. The percentage CEM data availability for opacity and all gaseous concentration monitors shall be maintained at a minimum of 90% on a calendar quarter basis. The percentage CEM data availability for opacity and all gaseous concentration monitors shall be maintained at a minimum of 75% for any calendar month. The percentage CEM data availability is calculated as specified in Env-A 808.10(d). If the percentage data availability requirements can't be met for any calendar quarter, the owner or operator is required to follow the procedures in Env-A 808.10(e)(1) and (2). If the percentage data availability requirements can't be met for any 2 consecutive calendar quarters, the owner or operator is required to follow the procedures in Env-A 808.10(f)(1) and (2) for installing a replacement CEM or Env-A 808.10(g).	As specified	EU7	Env-A 808.10(e)-(g) (eff. 10-31-02) & Temporary Permit FP-T-0110
16.	CEM Valid Averaging Periods	The number of hours of valid CEM data required for determining a valid averaging period for the different emission standard periods shall be: a) For a 24-hr standard emission standard period, 18 hours of valid data.	As specified	EU7	Env-A 808.14(a)-(c) (eff. 10-31-02) & Temporary Permit FP-T-0110

Method of Compliance					
Item	Parameter	Method of Compliance	Frequency	Test Method	Reference
17.	General Stack Testing Requirements	The owner or operator shall conduct visible and gaseous emissions testing conforming to the following: a) A compliance stack emissions test shall conform to the following: 1. The general requirements of 40 CFR 60.8(a), (b), (d), (e), and (f); and 2. The test methods contained in 40 CFR 60 Appendix A, 40 CFR 51 Appendix M, or any other EPA-promulgated stack test method. b) An owner or operator shall sample emissions at locations and sampling points that will provide representative measurements of the actual emissions during source operation at the time of the test. c) The owner or operator shall perform a stratification check at each measurement location where a determination of a gas concentration is required. d) A stratification check shall be accomplished by measuring the pollutant or diluent, oxygen or carbon dioxide gas concentration in accordance with the EPA Emission Measurement Technical Information Center Guideline Document, GD-025, Determination of the Presence of Stratification of Gaseous Pollutant and Diluent Emissions for Continuous Emission Monitor or Reference Method Relative Accuracy Locations, June 21, 1994. e) If stratification does not exist, a single point gas/diluent measurement location shall be acceptable within the inner 50 percent area of the duct or stack cross section. f) If stratification exists, the owner or operator shall obtain samples either at locations across the stack diameter equivalent to those specified in 40 CFR 60, Appendix B, Performance Specification 2, paragraph 3.2, or the locations specified in 40 CFR 60, Appendix A, Method 1.	NOx RACT compliance testing, once every 3 years after the initial performance test	EU7 & EU8	Env-A 802.02(a)-(f) (eff. 10-31-02) & Temporary Permit FP-T-0110
18.	Pre-test Notice	a) At least 30 days prior to the commencement of source testing, the owner or operator shall notify the division, of the date(s) of any planned compliance stack testing. b) The division shall require the rescheduling of any compliance stack emissions test if the staff necessary to observe the test, are not available.	As specified	EU7 & EU8	40 CFR 60 Subpart A, Section 60.8(d)

Method of Compliance					
Item	Parameter	Method of Compliance	Frequency	Test Method	Reference
19.	Pre-Test Protocol	At least 30 days prior to the commencement of testing, the Facility shall submit to the Division a pretest protocol with the information in Env-A 802.04(a) through (c).	As specified	EU7 & EU8	Env-A 802.04 (eff. 10-31-02) & Temporary Permit FP-T-0110
20.	Pre-Test Meeting	At least 15 days prior to the test date, the owner or operator and any contractor retained by the owner or operator to conduct the test shall meet with a Division representative or over the telephone. The details of the test, the testing schedule, and the process conditions under which the data shall be collected shall be finalized at the pre-test meeting. A pre-test meeting may be held less than 15 days prior to the test date so long as implementation of any testing or operation changes resulting from the meeting can be carried out prior to the scheduled test date and the scheduled test integrity is not jeopardized.	As specified	EU7 & EU8	Env-A 802.05 (eff. 10-31-02) & Temporary Permit FP-T-0110
21.	Safe Access to Sampling Platforms	The owner or operator must provide for safe access to sampling stations and provide sampling stations in accordance with 40 CFR 60 Subpart A, Section 60.8(e).	As specified	EU7 & EU8	40 CFR 60 Subpart A, Section 60.8(e)
22.	Number of Runs for a Complete Test	Each performance test shall consist of three separate runs using the applicable test method.	As specified	EU7 & EU8	40 CFR 60 Subpart A, Section 60.8(f)

Section	Activity	Requirements	Frequency	Responsible Party	Permit
23.	Repeating a Compliance Stack Test	An owner or operator that repeats a compliance stack test on the same source shall not be required to submit another pre-test protocol or attend another pre-test meeting as specified in Env-A 802.04 and Env-A 802.05, provided that the following conditions are met: a) The owner or operator uses the same stack testing contractor; b) The owner or operator follows all stack test and plant operating conditions specified in the previously accepted pre-test protocol or any deviations from the previously accepted pre-test protocol are specified in detail in the letter described in d) below; c) The division approved the previous stack test as submitted by the owner or operator and the stack testing contractor; and d) The owner, operator, or stack testing contractor submits a letter to the division referencing the previously approved pre-test protocol and pre-test meeting and identifying in detail any deviations from the previously accepted pre-test protocol or pre-test meeting.	As specified	EU7 & EU8	Env-A 802.06(a)-(d) (eff. 10-31-02) & Temporary Permit FP-T-0110
24.	Scheduling Changes	a) The owner or operator shall notify the division by telephone, fax, or electronic mail prior to any changes in the testing schedule for a compliance stack test. b) The owner or operator shall obtain prior approval from the division, which shall be based on staff availability, of any new date for a compliance stack test.	As specified	EU7 & EU8	Env-A 802.07(a) & (b) (eff. 10-31-02) & Temporary Permit FP-T-0110
25.	Calibration Data for Stack Sampling Equipment	a) The owner or operator shall provide calibration data for any sampling equipment used during the compliance stack testing to the division upon request during the day of testing. b) The owner or operator shall provide copies of all calibration and field test data taken during the testing, including failed runs, to the division upon request.	As specified	EU7 & EU8	Env-A 802.08(a) & (b) (eff. 10-31-02) & Temporary Permit FP-T-0110

Section	Activity	Requirements	Frequency	Responsible Party	Permit
26.	Use of Alternative Methods During a Test	The Division shall approve deviations from the agreed-upon test method or pre-test protocol if the following criteria are met: a) The owner or operator informs division personnel assigned to the stack test of the following: 1. The deviation from the testing method or planned operational mode of the source; 2. The reason(s) for the deviation; 3. The implications of such a deviation; and 4. The owner or operator provides technical justification showing that allowance of such deviation will not affect the accuracy of the compliance stack emissions test.	As specified	EU7 & EU8	Env-A 802.09 (eff. 10-31-02) & Temporary Permit FP-T-0110
27.	Operating Conditions During a Stack Emission Test	In accordance with 40 CFR 60 Subpart GG and revisions contained in the Federal Register dated April 14, 2003 (pages 17990 to 18005), the facility is required to test the CT while firing No. 2 fuel oil without the HRSG on line at 90 to 100 percent peak load for three runs. The facility will repeat this test procedure with the CT while firing natural gas without the HRSG on line. In addition, DES is requiring the facility to test the CT and duct burner combined with the CT firing No. 2 fuel oil at 90 to 100 percent peak load and the duct burner at 100 percent load on natural gas for three runs. Finally, the facility will test the CT and duct burner combined with the CT firing natural gas at 90 to 100 percent peak load and the duct burner at 100 percent load on natural gas for three runs. The facility shall test for NO _x , CO, %O ₂ or CO ₂ , PM ₁₀ , and H ₂ SO ₄ mist on the CT and duct burner tests.	As specified	EU7 & EU8	40 CFR 60 Subpart A, Section 60.8(c)
28.	Report Submission Requirements	The owner or operator shall submit the stack test emissions report containing all of the information in Env-A 802.11(c)(1) through (8) to the Division within 60 days of the completion of the stack testing.	Within 60 days of completion of stack testing	EU7 & EU8	Env-A 802.11 (eff. 10-31-02) & Temporary Permit FP-T-0110
29.	Compliance Stack Testing for NO _x and Test Methods	The owner or operator is required to conduct stack testing for NO _x emissions from the CT at least once every three years after the date of the initial startup to demonstrate compliance with the NO _x RACT emissions limitation for the CT. The owner or operator shall use test methods contained in Env-A 803.02(e)(1)-(5) or (f), as applicable.	Once every 3 years after the initial performance test	EU7 & EU8	Env-A 803.02(d)-(f) (eff. 10-31-02) & Temporary Permit FP-T-0110

Item	Parameter	Requirement	Frequency	Location	Applicable Regulations
30.	Monitoring Electrical Power Generation	The owner or operator shall monitor electrical power generation from its Combustion Turbine in accordance with either Env-A 3705.01(b)(1) or (2). All power generation monitors shall be operated and maintained in accordance with the operating and maintenance procedures specified by the manufacturer.	Continuous	EU7	Env-A 3705.01(b) & Temporary Permit FP-T-0110
31.	Sulfur Content of Liquid Fuels	The owner or operator shall conduct testing using the appropriate ASTM methods or retain certified delivery tickets which state the weight percent of sulfur for each delivery of fuel oil to determine compliance with the sulfur content limitation provisions in this permit for liquid fuels.	For each delivery	Facility Wide	Env-A 806.02 & Env-A 806.05 (eff. 10-31-02)

E. Recordkeeping Requirements¹⁴:

The Permittee shall be subject to the recordkeeping requirements identified in Table 6 below:

Item	Recordkeeping Requirement	Retention Period	Location	Applicable Regulations
1.	Retention of Records The owner or operator shall retain records of all required monitoring data, recordkeeping and reporting requirements, and support information for a period of at least 5 years from the date of origination.	Retain for a minimum of 5 years	Facility Wide	Env-A 902.01 & 40 CFR 70.6(a)(3)(ii)(B)
2.	General Recordkeeping Requirements for Combustion Sources For each fuel burning device at the facility, the owner or operator shall keep records of fuel utilization in accordance with the following: a) Hours of operation of each combustion device; b) Fuel consumption; c) Fuel type (e.g., natural gas, liquefied petroleum gas, No. 2 fuel oil, and diesel fuel); d) Viscosity (for liquid fuels); e) Sulfur content of any: 1. Gaseous fuel burned in terms of grains sulfur per scf fuel, or percent sulfur by weight, calculated as hydrogen sulfide at standard temperature and pressure; and 2. Liquid fuel burned in terms of percent sulfur by weight.	Monthly	Facility Wide	Env-A 903.03 (eff. 10-21-03) & Temporary Permit FP-T-0110
3.	General Recordkeeping Requirements for Sources with CEMS The owner or operator of a stationary source with a certified continuous emission monitoring system subject to Env-A 800, shall maintain records in accordance with the provisions of Env-A 800, and all applicable federal regulations.	On a continuous basis	EU7	Env-A 903.04 (eff. 10-21-03) & Temporary Permit FP-T-0110

¹⁴ New Hampshire rules cited in this section as federally enforceable are contained in the EPA-approved State Implementation Plan (SIP), or they are awaiting EPA approval and are at least as stringent as the SIP rule. Each citation of a non-SIP rule is followed by the effective date of that rule.

Item	Requirement	Frequency	Location	Reference
4.	General NO_x Recordkeeping Requirements: The owner or operator of any stationary source, area source, or device subject to this part, shall record the following information and maintain such records at the facility: a) Identification of each combustion device; b) Operating schedule during the high ozone season for each combustion device identified in a), above, including: 1. Hours of operation per calendar month; 2. Days of operation per calendar month; 3. Number of weeks of operation; 4. Type and amount of fuel burned for each combustion device; 5. Heat input rate in million BTUs per hour; and 6. The following NO _x emission data: a. Actual NO _x emissions from each combustion device identified in a) above for: 1) Each calendar year, in tons; and 2) A high ozone season day during that calendar year, in pounds per day; and c) The emission factors and the origin of the emission factors used to calculate the NO _x emissions.	On a continuous basis	Facility Wide	Env-A 905.02 (eff. 4-23-99) & Temporary Permit FP-T-0110
5.	Additional Recordkeeping Requirements The owner or operator shall maintain a 12-month running total record of emissions of NO _x , SO ₂ , CO, PM ₁₀ , VOC, and H ₂ SO ₄ mist from EU1 through EU10 combined, for the purpose of demonstrating that emissions of these pollutants are below the caps in Item 4 of Table 4a, which the facility took to net out of Non-attainment New Source Review and Prevention of Significant Deterioration program requirements.	On a continuous basis	EU1-EU10	Env-A 906 (eff. 4-23-99) & Temporary Permit FP-T-0110
6.	NO_x RACT Annual Boiler Tune-ups Maintain in a permanently bound log book the following information: a) The date(s) on which: 1. The efficiency test was conducted; and 2. The combustion process was last adjusted. b) The name(s), title, and affiliation of the person(s) who: 1. Conducted the efficiency test; and 2. Made the adjustments. c) The NO _x emission concentration, in ppmvd, corrected to 15% oxygen, after the adjustments are made; d) The CO emission concentration, in ppmvd, corrected to 15% oxygen, after the adjustments are made; e) The opacity readings; and f) Any other information required by Env-A 903, Env-A 905, and Env-A 909.	On a continuous basis	EU1-EU6	Env-A 1211.05(b)(2)

Item	Requirement	Frequency	Location	Reference
7.	a) The owner or operator shall maintain calendar monthly records of actual NO _x emissions in accordance with the methods set forth in Env-A 620. b) The owner or operator shall maintain calendar monthly records of power generation from the CT in accordance with the following: 1. The measurements of power generation as output on an instrument recorder; 2. The number of hours of operation of the NO _x -emitting generation source; 3. The number of hours of downtime of the power generation monitoring system, if applicable, during the time period when the NO _x -emitting generation source is in operation; 4. Fuel usage; and 5. The frequency and results of calibrations performed, as applicable.	Monthly	EU7	Env-A 3706.01 (eff. 12-20-01) & Temporary Permit FP-T-0110
8.	The owner or operator will calculate the NO _x emissions reduction fee by taking the total tons of NO _x emissions calculated in accordance with Env-A 3704 and multiplying by the NO _x emissions reduction fee in dollars per ton for the appropriate time period from Table 3707-1.	Annually	EU7	Env-A 3707.03 (eff. 12-20-01) & Temporary Permit FP-T-0110
9.	The owner or operator shall maintain records of: a) The occurrence and duration of any startup, shutdown, or malfunction in the operation of the CT and HRSU Unit; or b) Any periods during which a continuous monitoring system or monitoring device is inoperative.	As stated	EU7 & EU8	40 CFR 60 Subpart A Section 60.7(b)
10.	The owner or operator shall maintain a file of all measurements, including: a) Continuous monitoring system, monitoring device (fuel flow meter), and performance testing measurements; b) All continuous monitoring system performance evaluations; c) All continuous monitoring system or monitoring device calibration checks; d) Adjustments and maintenance performed on these systems or devices; and e) All other information required by this part recorded in a permanent form suitable for inspection.	5 year record retention	EU7 & EU8	40 CFR 60 Subpart A Section 60.7(f)

Reporting Requirements			
Item	Reporting Requirements	Frequency	Applicable Regulations
11.	Monitoring/Testing Data The owner or operator shall maintain records of monitoring and testing requirements as specified in Table 5 of this Permit including but not limited to: a) Summary reports of stack testing conducted on combustion devices at the facility; and b) Summary of testing and/or delivery ticket certifications for sulfur content limitations in liquid fuel.	Maintain on a continuous basis	Facility Wide Env-A 902.01 (new rule) & 40 CFR 70.6(a)(3)(III)(A)
12.	Keep copies of records of VOLs stored for a period of two years. Keep records of tank dimensions and capacity for the life of the tank. Maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.	As specified	No. 2 Fuel Oil Storage Tank 40 CFR 60 Subpart Kb, Section 60.116b(a-c)
13.	The owner or operator shall maintain the following records for All Emergency Generators located at the facility: a) Hours of operation; b) Dates of operation; c) Monthly and consecutive 12 month fuel use; and d) Consecutive 12 month hours of operation.	Maintain on a continuous basis	EU9, EU10, & EU11 Env-A 906
14.	Record and maintain records of the types and amounts of fuel combusted by the Duct Burner each day.	Maintain on a continuous basis	EU8 40 CFR 60 Subpart Dc, Section 60.48c(g)

F. Reporting Requirements:

The Permittee shall be subject to the reporting requirements identified in Table 7 below:

Reporting Requirements			
Item	Reporting Requirements	Frequency	Applicable Regulations
1.	Certification of Accuracy Any report submitted to the DES and/or EPA shall include the certification of accuracy statement outlined in Section XXI.B of this Permit and shall be signed by the responsible official.	As specified in this Permit	Facility Wide 40 CFR 70.6(c)(1)
2.	NO_x Reporting Requirements: For each combustion device, the owner or operator shall submit to the director, in accordance with the schedule in Env-A 909.02(a), reports of the data required pursuant to Env-A 905.	Annually to DES (no later than April 15 th of the following year)	Facility Wide Env-A 909.03 (eff. 4-23-99) & Temporary Permit FP-T-0110
3.	In accordance with Env-A 3704.01(b), a NO _x -emitting generation source (CT #1) shall not be required to pay NO _x emissions reduction fund fees for the first 7 pounds of NO _x emitted for each megawatt-hour of electricity produced. In addition, the owner or operator may submit a written request in accordance with Env-A 3703.02 in order to claim exclusion for NO _x emissions attributed to heat recovery from these devices. To date, the owner or operator has not submitted a written request.	As stated	EU7 Env-A 3704.01(b) (eff. 12-20-01) & Temporary Permit FP-T-0110
4.	The owner or operator shall submit annually to the Division all information pursuant to Env-A 3706.01 (monthly actual NO _x emissions and monthly power generation for CT) by April 15 th of the following calendar year.	Initially due before April 15, 2007 and thereafter, annually, by April 15 th the following year	EU7 Env-A 3706.02 (eff. 12-20-01) & Temporary Permit FP-T-0110

Item	Requirement	Frequency	Applicable	Reference
5.	<p>a) In accordance with Env-A 3707.01(a), in addition to the fees specified in Env-A 700, all applicable NO_x-emitting generation sources shall pay to the Division each year, starting in 2006 for NO_x emitted in 2005, a NO_x emissions reduction fund fee as calculated pursuant to Env-A 3707.03.</p> <p>b) In accordance with Env-A 3707.02, the owner or operator will submit to the Director with each emission reduction fund fee payment a description of the method used to calculate actual emissions with each emission reduction fee payment.</p> <p>c) In accordance with Env-A 3707.04, the owner or operator will pay to the Division the NO_x emissions reduction fund fee annually, in accordance with the schedule specified in Env-A 705.04 for emission-based fees.</p>	Annually, by April 15 th the following year	EU7	Env-A 3707.01(a), Env-A 3707.02, Env-A 3707.04 (eff. 12-20-01) & Temporary Permit FP-T-0110
6.	Permit Deviations Prompt reporting of deviations from Permit requirements including those attributed to upset conditions as defined in the Permit, the probable cause of such deviations, and any corrective actions or preventative measures taken shall be conducted in accordance with Section XXVIII. of this Permit.	Prompt reporting (within 24-hours of discovery of an occurrence)	Facility Wide	40 CFR 70.6(e)(3)(ii)(B)

Item	Requirement	Frequency	Applicable	Reference
7.	Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or summary report form (see Item 3 of this Table) to the USEPA and DES semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the USEPA, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information: <p>a) The magnitude of excess emissions computed in accordance with § 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.</p> <p>b) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.</p> <p>c) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.</p> <p>d) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.</p>	Semiannually, by January 31 st and July 31 st each year	EU7	40 CFR 60 Subpart A Section 60.7(c)
8.	The owner or operator of a source subject to 40 CFR 60 which is required to install, calibrate, operate, and maintain a CEM system shall provide the following information in each quarterly emission report specified in Env-A 808.11: <p>a) The information specified in 40 CFR 60.7(c) and any applicable subpart of 40 CFR 60;</p> <p>b) The daily averages of gaseous CEM measurements and calculated emission rates; and</p> <p>c) The information required in Env-A 808.13(a)(5) through (9).</p>	Within 30 days of the end of each calendar quarter	EU7	Env-A 808.11, 808.12(a)-(c) (eff. 10-31-02) & Temporary Permit FP-T-0110
9.	Annually, on or before April 15 th of the following year, submit for each calendar month of the calendar year the consecutive 12 month NO _x , SO ₂ , PM ₁₀ , VOC, CO, and H ₂ SO ₄ mist emissions totals combined from EU1 through EU10.	Annually, by April 15 th the following year	EU1-EU10	Env-A 910 & Temporary Permit FP-T-0110

	Requirement	Frequency	Scope	Reference
10.	Semi-annual Monitoring, Testing, and Permit Deviations Summary Report The owner or operator shall submit a summary report of Items #9 and 11 in Table 6, and permit deviations every 6 months. All instances of deviations from Permit requirements must be clearly identified in such reports. A responsible official must certify all reports consistent with Section XXII.B. of this Permit.	Semi-annually by July 31 st and January 31 st of each calendar year.	Facility Wide	40 CFR 70.6(a)(3)(iii)(A)
11.	Payment of Emission Based Fees Annual payment of emission based fees shall be conducted in accordance with Section XXIII of this Permit. The owner or operator of a stationary source, an area source, or device having actual emissions of 1,000 tons or less shall pay to the department the annual emission-based fee no later than April 15th each subsequent year for emissions from the previous calendar year.	Annually (no later than April 15 th of the following year)	Facility Wide	Env-A 705.04 (eff. 6-26-04) & Temporary Permit FP-T-0110
12.	Annual Emissions Report The owner or operator shall submit an annual emissions report on or before April 15th of the following year including: a) The actual calendar year emissions of the stationary source, area source or device and the methods used in calculating such emissions in accordance with Env-A 705.02, <i>Determination of Actual Emissions for Use in Calculating Emission-based Fees</i> ; and b) For combustion devices, all information in accordance with Env-A 903.03, <i>General Record keeping Requirements for Combustion Devices</i> .	Annually (no later than April 15 th of the following year)	Facility Wide	Env-A 907.01 (eff. 4-23-99) & Temporary Permit FP-T-0110
13.	Annual Compliance Certification Annual compliance certification shall be submitted in accordance with Section XXI of this Permit.	Annually (no later than April 15 th of the following year)	Facility Wide	40 CFR 70.6(c)(1)

IX. Requirements Currently Not Applicable:

The Permittee did not identify any requirements which are not applicable to the facility.

General Title V Operating Permit Conditions

X. Issuance of a Title V Operating Permit

- A. This Permit is issued in accordance with the provisions of Env-A 609. In accordance with 40 CFR 70.6(a)(2), this Permit shall expire on the date specified on the cover page of this Permit, which shall not be later than the date five (5) years after issuance of this Permit.
- B. Permit expiration terminates the Permittee's right to operate the Permittee's emission units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

XI. Title V Operating Permit Renewal Procedures

Pursuant to Env-A 609.07(b), an application for renewal of this Permit shall be considered timely if it is submitted to the Director at least six months prior to the designated expiration date of this Permit.

XII. Application Shield

Pursuant to Env-A 609.08, if an applicant submits a timely and complete application for the issuance or renewal of a Permit, the failure to have a Permit shall not be considered a violation of this part until the Director takes final action on the application.

XIII. Permit Shield

- A. Pursuant to Env-A 609.09(a), a permit shield shall provide that:
 1. For any applicable requirement or any state requirement found in the New Hampshire Rules Governing the Control of Air Pollution specifically included in this Permit, compliance with the conditions of this Permit shall be deemed compliance with said applicable requirement or said state requirement as of the date of permit issuance; and
 2. The Permittee need not comply with any applicable requirement or state requirement found in the New Hampshire Rules Governing the Control of Air Pollution and specifically identified in Section IX of this Title V Operating Permit as not applicable to the stationary source or area source.
- B. The permit shield identified in Section XIII.A. of this Permit shall apply only to those conditions incorporated into this Permit in accordance with the provisions of Env-A 609.09(b). It shall not apply to certain conditions as specified in Env-A 609.09(c) that may be incorporated into this Permit following permit issuance by DES.
- C. If a Title V Operating Permit and amendments thereto issued by the DES does not expressly include or exclude an applicable requirement or a state requirement found in the New Hampshire Rules Governing the Control of Air Pollution, that applicable requirement or state requirement shall not be covered by the permit shield and the Permittee shall comply with the provisions of said requirement to the extent that it applies to the Permittee.
- D. If the DES determines that this Title V Operating Permit was issued based upon inaccurate or incomplete information provided by the applicant or Permittee, any permit shield provisions in said Title V Operating Permit shall be void as to the portions of said Title V Operating Permit which are affected, directly or indirectly, by the inaccurate or incomplete information.

- E. Pursuant to Env-A 609.09(f), nothing contained in Section XIII of this Permit shall alter or affect the ability of the DES to reopen this Permit for cause in accordance with Env-A 609.19 or to exercise its summary abatement authority.
- F. Pursuant to Env-A 609.09(g), nothing contained in this section or in any title V operating permit issued by the DES shall alter or affect the following:
1. The ability of the DES to order abatement requiring immediate compliance with applicable requirements upon finding that there is an imminent and substantial endangerment to public health, welfare, or the environment;
 2. The state of New Hampshire's ability to bring an enforcement action pursuant to RSA 125-C:15,II;
 3. The provisions of section 303 of the CAA regarding emergency orders including the authority of the EPA Administrator under that section;
 4. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 5. The applicable requirements of the acid rain program, consistent with section 408(a) of the CAA;
 6. The ability of the DES or the EPA Administrator to obtain information about a stationary source, area source, or device from the owner or operator pursuant to section 114 of the CAA; or
 7. The ability of the DES or the EPA Administrator to enter, inspect, and/or monitor a stationary source, area source, or device.

XIV. Reopening for Cause

The Director shall reopen and revise a Title V Operating Permit for cause if any of the circumstances contained in Env-A 609.19(a) exist. In all proceedings to reopen and reissue a Title V Operating Permit, the Director shall follow the provisions specified in Env-A 609.19(b) through (g).

XV. Administrative Permit Amendments

- A. Pursuant to Env-A 612.01, the Permittee may implement the changes addressed in the request for an administrative permit amendment as defined in Env-A 100 immediately upon submittal of the request.
- B. Pursuant to Env-A 612.01, the Director shall take final action on a request for an administrative permit amendment in accordance with the provisions of Env-A 612.01(b) and (c).

XVI. Operational Flexibility

- A. Pursuant to Env-A 612.02, the Permittee subject to and operating under this Title V Operating Permit may make changes involving trading of emissions, off-permit changes, and section 502(b)(10) changes at the permitted stationary source or area source without filing a Title V Operating Permit application for and obtaining an amended Title V Operating Permit, provided that all of the following conditions are met, as well as conditions specified in Section XVI. B through E of this permit, as applicable. At this point, DES has not included any permit terms authorizing emissions trading in this permit.

1. The change is not a modification under any provision of Title I of the CAA;
 2. The change does not cause emissions to exceed the emissions allowable under the Title V operating permit, whether expressed therein as a rate of emissions or in terms of total emissions;
 3. The owner or operator has obtained any temporary permit required by Env-A 600;
 4. The owner or operator has provided written notification to the director and administrator of the proposed change and such written notification includes:
 - a. The date on which each proposed change will occur;
 - b. A description of each such change;
 - c. Any change in emissions that will result;
 - d. A request that the operational flexibility procedures be used; and
 - e. The signature of the responsible official, consistent with Env-A 605.04(b);
 5. The change does not exceed any emissions limitations established under any of the following:
 - a. The New Hampshire Code of Administrative Rules, Env-A 100-3800;
 - b. The CAA; or
 - c. This Title V Operating Permit; and
 6. The Permittee, DES, and EPA have attached each written notice required above to their copy of this Title V Operating Permit.
- B. For changes involving the trading of emissions, the Permittee must also meet the following conditions:
1. The Title V Operating Permit issued to the stationary source or area source already contains terms and conditions including all terms and conditions which determine compliance required under 40 CFR 70.6(a) and (c) and which allow for the trading of emissions increases and decreases at the permitted stationary source or area source solely for the purpose of complying with a federally-enforceable emissions cap that is established in the permit independent of otherwise applicable requirements;
 2. The owner or operator has included in the application for the Title V Operating Permit proposed replicable procedures and proposed permit terms which ensure that the emissions trades are quantifiable and federally enforceable for changes to the Title V Operating Permit which qualify under a federally-enforceable emissions cap that is established in the Title V Operating Permit independent of the otherwise applicable requirements;
 3. The Director has not included in the emissions trading provision any devices for which emissions are not quantifiable or for which there are no replicable procedures to enforce emissions trades; and
 4. The written notification required above is made at least 7 days prior to the proposed change and includes a statement as to how any change in emissions will comply with the terms and conditions of the Title V Operating Permit.

- C. For off-permit changes, the Permittee must also meet the following conditions:

1. Each off-permit change meets all applicable requirements and does not violate any existing permit term or condition;
 2. The written notification required above is made contemporaneously with each off-permit change, except for changes that qualify as insignificant under the provisions of Env-A 609.04;
 3. The change is not subject to any requirements under Title IV of the CAA and the change is not a Title I modification;
 4. The Permittee keeps a record describing the changes made at the source which result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this Permit, and the emissions resulting from those changes; and
 5. The written notification required above includes a list of the pollutants emitted and any applicable requirement that would apply as a result of the change.
- D. For section 502(b)(10) changes, the Permittee must also meet the following conditions:
1. The written notification required above is made at least 7 days prior to the proposed change; and
 2. The written notification required above includes any permit term or condition that is no longer applicable as a result of the change.
- E. Pursuant to Env-A 612.02(f), the off-permit change and section 502(b)(10) change shall not qualify for the permit shield under Env-A 609.09.

XVII. Minor Modifications

- A. Prior to implementing a minor permit modification, the Permittee shall submit a written request to the Director in accordance with the requirements of Env-A 612.05(b).
- B. The Director shall take final action on the minor permit amendment request in accordance with the provisions of Env-A 612.05(e) through (g).
- C. Pursuant to Env-A 612.05(h), the permit shield specified in Env-A 609.09 shall not apply to minor permit amendments under Section XVII. of this Permit.
- D. Pursuant to Env-A 612.05(a), the Permittee shall be subject to the provisions of RSA 125-C:15 if the change is made prior to the filing with the Director of a request for a minor permit amendment.

XVIII. Significant Permit Modifications

- A. Pursuant to Env-A 612.06, a change at the facility shall qualify as a significant permit amendment if it meets the criteria specified in Env-A 612.06(a)(1) through (5).
- B. Prior to implementing the significant permit amendment, the Permittee shall submit a written request to the Director which includes all the information as referenced in Env-A 612.06(b) and (c) and shall be issued an amended Title V Operating Permit from the DES. The Permittee shall be subject to the provisions of RSA 125-C:15 if a request for a significant permit amendment is not filed with the Director and/or the change is made prior to the issuance of an amended Title V Operating Permit.

- C. The Director shall take final action on the significant permit amendment in accordance with the Procedures specified in Env-A 612.06(e) and (f).

XIX. Title V Operating Permit Suspension, Revocation or Nullification

- A. Pursuant to RSA 125-C:13, the Director may suspend or revoke any final permit issued hereunder if, following a hearing, the Director determines that:
1. The Permittee has committed a violation of any applicable statute or state requirement found in the New Hampshire Rules Governing the Control of Air Pollution, order or permit condition in force and applicable to it; or
 2. The emissions from any device to which this Permit applies, alone or in conjunction with other sources of the same pollutants, presents an immediate danger to the public health.
- B. The Director shall nullify any Permit if, following a hearing in accordance with RSA 541-A:30, II, a finding is made that the Permit was issued in whole or in part based upon any information proven to be intentionally false or misleading.

XX. Inspection and Entry

EPA and DES personnel shall be granted access to the facility covered by this Permit, in accordance with RSA 125-C:6,VII for the purposes of: inspecting the proposed or permitted site; investigating a complaint; and assuring compliance with any applicable requirement or state requirement found in the New Hampshire Rules Governing the Control of Air Pollution and/or conditions of any Permit issued pursuant to Chapter Env-A 600.

XXI. Certifications

A. Compliance Certification Report

In accordance with 40 CFR 70.6(e) the Responsible Official shall certify for the previous calendar year that the facility is in compliance with the requirements of this permit. The report shall be submitted annually, no later than April 15th of the following year. The report shall be submitted to the DES and to the U.S. Environmental Protection Agency – Region I. The report shall be submitted in compliance with the submission requirements below.

In accordance with 40 CFR 70.6(e)(5), the report shall describe:

1. The terms and conditions of the Permit that are the basis of the certification;
2. The current compliance status of the source with respect to the terms and conditions of this Permit, and whether compliance was continuous or intermittent during the reporting period;
3. The methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
4. Any additional information required by the DES to determine the compliance status of the source.

B. Certification of Accuracy Statement

All documents submitted to the DES shall contain a certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in accordance with the requirements of 40 CFR 70.5(d) and contain the following language:

"I am authorized to make this submission on behalf of the facility for which the submission is made. Based on information and belief formed after reasonable inquiry, I certify that the statements and information in the enclosed documents are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

All reports submitted to DES (except those submitted as emission based fees as outlined in Section XXIII of this Permit) shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
ATTN: Section Supervisor, Compliance Bureau

All reports submitted to EPA shall be submitted to the following address:

Office of Environmental Stewardship
Director Air Compliance Program
United States Environmental Protection Agency
1 Congress Street
Suite 1100 (SEA)
Boston, MA 02114-2023
ATTN: Air Compliance Clerk

XXII. Enforcement

Any noncompliance with a permit condition constitutes a violation of RSA 125-C:15, and, as to the conditions in this permit which are federally enforceable, a violation of the Clean Air Act, 42 U.S.C. Section 7401 et seq., and is grounds for enforcement action, for permit termination or revocation, or for denial of an operating permit renewal application by the DES and/or EPA. Noncompliance may also be grounds for assessment of administrative, civil or criminal penalties in accordance with RSA 125-C:15 and/or the Clean Air Act. This Permit does not relieve the Permittee from the obligation to comply with any other provisions of RSA 125-C, the New Hampshire Rules Governing the Control of Air Pollution, or the Clean Air Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this Permit.

In accordance with 40 CFR 70.6 (a)(6)(ii), a Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

XXIII. Emission-Based Fee Requirements

- A. The Permittee shall pay an emission-based fee annually for this facility as calculated each calendar year pursuant to Env-A 705.03.
- B. The Permittee shall determine the total actual annual emissions from the facility to be included in the emission-based multiplier specified in Env-A 705.03(a) for each calendar year in accordance with the methods specified in Env-A 616.
- C. The Permittee shall calculate the annual emission-based fee for each calendar year in accordance with the procedures specified in Env-A 705.03 and the following equation:

$$FEE = E * DPT * CPI_m * ISF$$

Where:

FEE = The annual emission-based fee for each calendar year as specified in Env-A 705.
E = The calculation of total annual emissions as specified in Env-A 705.02 and the provisions specified in Env-A 705.03(a).
DPT = The dollar per ton fee the DES has specified in Env-A 705.03(b).
CPI_m = The Consumer Price Index Multiplier as calculated in Env-A 705.03(c).
ISF = The Inventory Stabilization Factor as specified in Env-A 705.03(d).

- D. The Permittee shall contact the DES each calendar year for the value of the Inventory Stabilization Factor.
- E. The Permittee shall contact the DES each calendar year for the value of the Consumer Price Index Multiplier.
- F. The Permittee shall submit, to the DES, payment of the emission-based fee and a summary of the calculations referenced in Sections XXIII.B. and C of this Permit for each calendar year no later than April 15 each subsequent year for the emissions from the previous calendar year. The emission-based fee and summary of the calculations shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
P.O. Box 95
Concord, NH 03302-0095
ATTN: Emissions Inventory

- G. The DES shall notify the Permittee of any under payments or over payments of the annual emission-based fee in accordance with Env-A 705.05.

XXIV. Duty To Provide Information

In accordance with 40 CFR 70.6 (a)(6)(v), upon the DES's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee shall furnish to the DES copies of records that the Permittee is required to retain by this Permit. The Permittee may make a claim of confidentiality as to any information submitted pursuant to this condition in accordance with Env-A 103 at the time such information is submitted to DES. DES shall evaluate such requests in accordance with the provisions of Env-A 103.

XXV. Property Rights

Pursuant to 40 CFR 70.6 (a)(6)(iv), this Permit does not convey any property rights of any sort, or any exclusive privilege.

XXVI. Severability Clause

Pursuant to 40 CFR 70.6 (a)(5), the provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

XXVII. Emergency Conditions

Pursuant to 40 CFR 70.6 (g), the Permittee shall be shielded from enforcement action brought for noncompliance with technology based¹⁷ emission limitations specified in this Permit as a result of an emergency¹⁸. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

- A. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
- B. The permitted facility was at the time being properly operated;
- C. During the period of the emergency, the Permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this Permit; and

¹⁷ Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

¹⁸ An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

- D. The Permittee submitted notice of the emergency to the DES within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

XXVIII. Permit Deviation

In accordance with 40 CFR 70.6(a)(3)(iii)(B), the Permittee shall report to the DES all instances of deviations from Permit requirements, by telephone, fax, or e-mail (pdeviations@des.state.nh.us) within 24 hours of discovery of such deviation. This report shall include the deviation itself, including those attributable to upset conditions as defined in this Permit, the probable cause of such deviations, and any corrective actions or preventative measures taken.

Within 10 days of discovery of the permit deviation, the Permittee shall submit a written report including the above information as well as the following: preventive measures taken to prevent future occurrences; date and time the permitted device returned to normal operation; specific device, process or air pollution control equipment that contributed to the permit deviation; type and quantity of excess emissions emitted to the atmosphere due to permit deviation; and an explanation of the calculation or estimation used to quantify excess emissions.

Said Permit deviation shall also be submitted in writing to the DES in the semi-annual summary report of monitoring and testing requirements due July 31st and January 31st of each calendar year. Deviations are instances where any Permit condition is violated and has not already been reported as an emergency pursuant to Section XXVII. of this Permit.

Reporting a Permit deviation is not an affirmative defense for action brought for noncompliance.

ATTACHMENT A

LIST OF ALL EMERGENCY GENERATORS ABOVE 150,000 Btu/hr

Generator ID	Building	Manufacturer	Model	Serial	Capacity (kW)	Fuel	Rated Voltage (V)	Rated Frequency (Hz)	Year
EG1	Central Heating Plant	Caterpillar	3306/SR4	45BH1535	155	Diesel	12.3	1.7	Pre 1999
EG2	Morse Building	Caterpillar	3406/SR4	2WB03136	250	Diesel	19	2.6	Pre 1999
EG3	New England Center	Caterpillar	3306/SR4	85204098	200	Diesel	15.8	2.2	Pre 1999
EG4	Water Supply	Allis/Chalmers	25000 1-7451-69053	25-03545	200	Diesel	15	2.1	Pre 1999
EG5	Gables Building	Caterpillar	3268A	AD2010805M L	250	Nat Gas	3200	3.2	Pre 1999
EG6	Whittemore Center	Caterpillar	3306	2TM00105	250	Diesel	19.4	2.7	Pre 1999
EG7	Rudman Building (Biosciences)	Caterpillar	3412/SR4	81Z16491	600	Diesel	46.1	6.3	Pre 1999
EG8	Black Start Emergency Generator at CT Plant	Caterpillar	3412/SR4B	BLG02735	750	Diesel	54.8	7.5	2004
EG9	Data Center	Caterpillar	3306	7YR02974	250	Diesel	19.1	2.6	Pre 2006
EG10	ETB	Unknown	Unknown	8TF01429	150	Nat Gas	734	0.73	Pre 2006
EG11	Mills Building	Caterpillar	3406	CBP00183	240	Nat Gas	2700	2.7	Pre 2006
EG12	Holloway Building	Cummins	GTA855G3	Unknown	250	Nat Gas	1400	1.4	Pre 2006
EG13	Dispatch EG	Generac	20A00611-S	2055173	20	Diesel	2	0.27	Pre 2006
EG14	Huddleston Building	Kohler	30R82 91427A29	358156	30	Nat Gas	500	0.5	Pre 2006
EG15	Dimond Library	Olympian	97 A02882-S	2035177	200	Diesel	15.6	2.1	Pre 2006
EG16	Parson 1	Olympian	G45F1	E5206E/001	45	Nat Gas	585	0.59	Pre 2006
EG17	PMS Building	Olympian	G50F3	Unknown	45	Nat Gas	585	0.59	Pre 2006
EG18	Stoke Building	Olympian	G15U1	D11731/001	15	Nat Gas	255	0.26	Pre 2006
EG19	Christenson Building	Onan	45 EM-4R/7605A	98059653	45	Nat Gas	585	0.59	Pre 2006
EG20	Coastal Marine Building	Onan	Unknown	C880107523	30	Diesel	2.6	0.36	Pre 2006
EG21	Field House Building	Onan	60.0DGCBL30547A	L870951296	60	Diesel	4.7	0.64	Pre 2006
EG22	Fire Department	Olympian	Unknown	Unknown	25	Nat Gas	450	0.45	Pre 2006
EG23	Horton Building	Onan	15RJC-4XR8/6335 R	Unknown	15	Nat Gas	255	0.26	Pre 2006
EG24	Jackson Laboratory	Onan	76C90X8L1	Unknown	25	Diesel	2.5	0.34	Pre 2006

Generator ID	Building	Manufacturer	Model	Serial	Capacity (kW)	Fuel	Rated Voltage (V)	Rated Frequency (Hz)	Year
EG25	Kendall Building	Onan	30EK-4RB8/3305 A	170158180	30	Nat Gas	600	0.6	Pre 2006
EG26	McConnell Building	Onan	30EK-4XR8/6392 8	1068069796	30	Nat Gas	600	0.6	Pre 2006
EG27	Mini Dorm Building	Onan	30 ODEH-15R/2072G	575953909	30	Diesel	2.6	0.36	Pre 2006
EG28	Parson 2 Building	Onan	45EM-4XR8/769A	20912-C20KR	45	Nat Gas	585	0.59	Pre 2006
EG29	Philbrook Building	Onan	85.0KR-15R/926IN	7702197785	85	Nat Gas	1400	1.4	Pre 2006
EG30	Telecom Building	Onan	1150WA-115R/2837O L	G850770776	115	Nat Gas	1500	1.5	Pre 2006
EG31	Williamson Building	Onan	45.0ER-15R/9928C	127270312	45	Nat Gas	585	0.59	Pre 2006
EG32	Health Service Building	Superior	45R431	1187650	45	Nat Gas	600	0.6	Pre 2006
EG33	Randall Hall	Caterpillar	G80F3	05Q848626	63.5	Nat Gas	894	0.912	2007

ATTACHMENT B

List of All Emissions Units Included in the Facility Wide Criteria Pollutant Emissions Caps

EU1	Boiler 1 at the Central Heating Plant	47.3 (No. 6 FO or Nat Gas)
EU2	Boiler 2 at the Central Heating Plant	47.3 (No. 6 FO or Nat Gas)
EU3	Boiler 3 at the Central Heating Plant	47.3 (No. 6 FO or Nat Gas)
EU4	Boiler 4 at the Central Heating Plant	47.3 (No. 6 FO or Nat Gas)
EU5	Boiler 5 at the Central Heating Plant	16.7 (No. 6 FO or Nat Gas)
EU6	Boiler 6 at the Central Heating Plant	16.7 (No. 6 FO or Nat Gas)
EU7	Combustion Turbine at the new Cooling, Heating, and Power Plant	124.8 (No. 2 FO & 106.0 (Nat Gas)
EU8	Heat Recovery Steam Generator with Duct Burner at the new Cooling, Heating, and Power Plant	66.3 (Nat Gas)
EU9	Black Start Emergency Generator	7.5 (Diesel)
EG1	Central Heating Plant Emergency Generator	1.7 (Diesel)
EG2	More Building Center Emergency Generator	2.6 (Diesel)
EG3	New England Center Emergency Generator	2.0 (Diesel)
EG4	Yale Building Emergency Generator	2.0 (Diesel)
EG5	Yale Building Emergency Generator	3.2 (Nat Gas)
EG6	Whittemore Center Emergency Generator	2.7 (Diesel)
EG7	Bushman Building (Biotechnical) Emergency Generator	6.3 (Diesel)
	Hollowny Commons Dining Hall Emergency Generator	2.88 (Nat Gas)
	Mills Hall Emergency Generator	2.89 (Nat Gas)
	Ogden Hall (Environmental Technology Building) Emergency Generator	1.93 (LPG)
	Central Heating Plant Emergency Generator	0.25 (Diesel)
	PAVIS Building Emergency Generator	0.67 (Propane)
	Central Heating Plant Emergency Generator	0.20 (Nat Gas)
	Central Heating Plant Emergency Generator	0.20 (Nat Gas)
	Yale Building Emergency Generator	0.20 (Nat Gas)
	Yale Building Emergency Generator	0.20 (Nat Gas)
	Lockman Building Boiler/Heater	0.20 (Nat Gas)
	Lockman Building Boiler/Heater	0.20 (Nat Gas)
	Philbrook Building Boiler/Heater	0.20 (Nat Gas)
	Philbrook Building Boiler/Heater	0.20 (Nat Gas)
	Barlowe Building Boiler/Heater	0.20 (Nat Gas)
	Ogden Hall (Environmental Technology Building) Boiler/Heater #1	3.57 (Diesel)
	Ogden Hall (Environmental Technology Building) Boiler/Heater #2	3.57 (Diesel)
	Ogden Hall (Environmental Technology Building) Boiler/Heater #3	3.57 (Diesel)